

# DISTRICT THREE DESIGN NEWSLETTER



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## District III Quarterly Design Newsletter

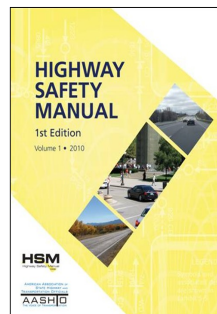
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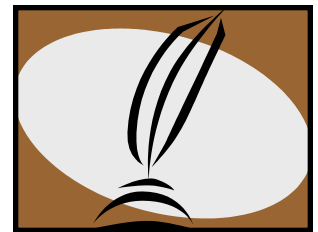
July—September, 2011

## *From the Editor's Desk— Highway Safety Manual* Scott Golden, P.E., District Design Engineer

The Highway Safety Manual (HSM) is a new AASHTO publication which introduces a science-based approach to safety analysis.



Based on 10+ years of research it provides methods to quantify estimates of crash frequency and severity. These methods allow safety to become a meaningful project performance measure throughout the Department's processes.

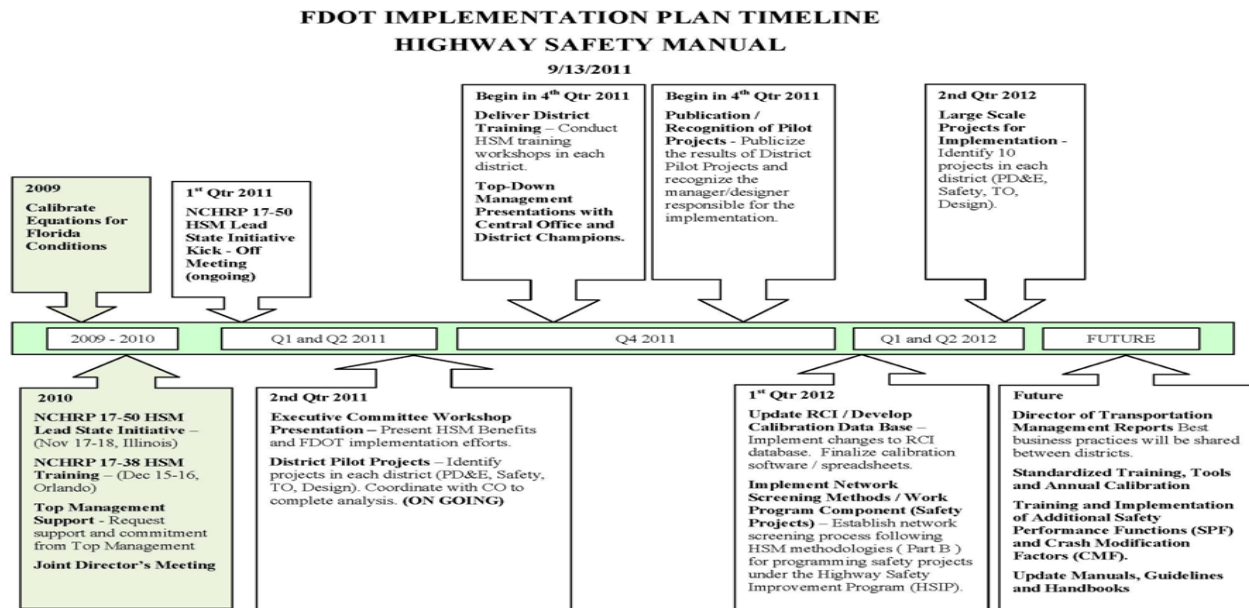


Implementation of the HSM is a priority for the Department. Use of the best available methods is essential to achieving the Department's vision of delivering a transportation system that is fatality free.

The HSM contains four parts. **Part A - Introduction, Human Factors, and Fundamentals**, Chapter 1 – Introduction and Overview, Chapter 2 – Human Factors, Chapter 3 – Fundamentals; **Part B - Roadway Safety Management Process**, Chapter 4 – Network Screening, Chapter 5 – Diagnosis, Chapter 6 – Select Countermeasures, Chapter 7 – Economic Appraisal, Chapter 8 – Prioritize Projects, Chapter 9 – Safety Effectiveness Evaluation; **Part C - Predictive Method**, Chapter 10 – Rural Two-Lane Roads, Chapter 11 – Rural Multilane Highways, Chapter 12 – Urban and Suburban Arterials; **Part D - Crash Modification Factors**, Chapter 13 – Roadway Segments, Chapter 14 – Intersections, Chapter 15 – Interchanges, Chapter 16 – Special Facilities, Chapter 17 – Road Networks.

(Cont.)





We are well into the implementation plan, and I look forward to you using this outstanding tool further in the future! There are several web sites where you can find out more about the HSM. The manual may be purchased from AASHTO. FHWA's web site is: <http://safety.fhwa.dot.gov/hsm/> or AASHTO: <http://www.highwaysafetymanual.org/Pages/default.aspx>. Thank you for your efforts and I look forward to seeing you in the near future.

## Design Spotlight— Plans Processing, Specifications & LAP

Scott Golden, P.E., District Design Engineer



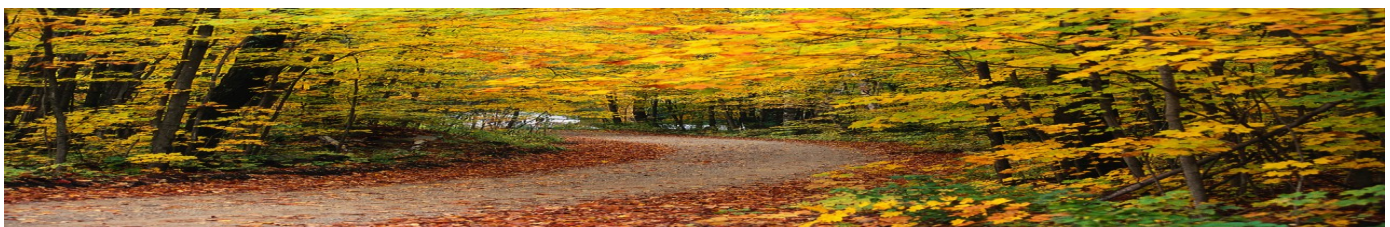
### Plans Processing & Specifications

Bill Evans, Bessie Dickens and Kelsea Garney make up Design's Plans Processing and Specifications unit. They will soon be leaving us to be a part of the Plans, Specifications, and Estimates (PS&E) section that will be part of a newly created Program Management Department. Design would like to say thank you for the years of service and professionalism. Each of them has and will continue to be an integral part of getting projects to letting. One word can be used to describe this group of individuals, and that is TEAMWORK.

### LAP

Denny has worked with the Department for 16 ½ years. For the past 5 years, Denny has worked in Roadway Design as a project manager with the Local Agency Program. As part of the reorganization, the Local Agency Program and Denny will be moving to the Program Management Office.

We will greatly miss each of them here in Design, and we wish them the best!





## ***Supplemental Agreement Report – July 2011 – September 2011***

**Miranda Glass, P.E., District Roadway Design Engineer**

Following is a sample of Supplemental Agreements for the third quarter of 2011 (July through September). The two (2) categories of Supplemental Agreements that are included in this summary are 101 and 015. This summary is included in the Quarterly Design Newsletter as a tool to inform designers of errors and omissions that can lead to Supplemental Agreements and unnecessary cost to the public. Below are brief descriptions of those errors or omissions and the department's responses.

**Description Code:**

101 – Necessary pay items not included in contract

**Reason:**

Existing driveways had 24" diameter pipe that needed to be adjusted to meet 1:4 slope horizontal clearance requirement and to control erosion of ditches and slopes in areas that have severe elevation difference. This Supplemental Agreement provides compensation for extra work to adjust existing driveways with 24" diameter pipe and place riprap rubble ditch lining in ditch areas through out the project to control erosion.

**Granted Time:** 0 (Zero) days

**Increase:** \$67,425.00

**Response:** Avoidable (Production FDOT) / no cost recovery action is recommended

**Description Code:**

015 – Contract Changes to Utility JPA Work

**Reason:**

The contractor was requested by the City of Tallahassee underground utilities to replace the water valve boxes that the contractor was scheduled to only adjust as per the contract plans. The old boxes will be removed and new boxes provided by the City of Tallahassee will be installed.

**Granted Time:** 0 (Zero) days

**Increase:** \$23,191.52

**Response:** Unavoidable (no remedial action required) / no cost recovery action is recommended

## **Top Ten Quality Control Comments July – Sept., 2011**

1. Add this note to the Clear Zone Note on the Typical Section Sheets: "Note: Design clear zone does not apply to clear zone widths for work zones."
2. Will Variable Milling and/or Overbuild be required to acquire the Cross Slopes indicated on Typical Section Sheets?
3. Delete references to Standard Index 102 in Notes (this Index has been deleted).
4. Please ensure that the SWPPP does not contain redundant information and/or information that duplicates the Specifications and/or Design Standards. (**Estimates Bulletin 09-02 dated July 9, 2009.**)
5. Place the "Warning Gas Main in Area of Construction" label on all relevant sheets.
6. When utilizing a temporary bridge structure, provide asphalt build up transitions to a zero slope as per Standard Index 21000 Sheet 1 of 7, Instructions to Designer, which states: "The temporary bridge is to have a zero cross-slope."
7. Label radius on guardrail CRT designs.
8. Please include the following note as a **Traffic Control Note** for all milling and resurfacing projects, unless otherwise directed by the Department:  
*"Milling operations in travel lanes are restricted to only that area which can be milled and resurfaced within the same work operation and prior to opening to traffic."*
9. Please include the following note as a **Traffic Control Note** for all projects where lane closures may impact school traffic and/or special school events:  
*"Lane closures will be prohibited Monday through Friday during active school periods from \_\_\_\_ a.m. to \_\_\_\_ a.m. and from \_\_\_\_ p.m. to \_\_\_\_ p.m.. Lane closures will also be prohibited during special school events. The contractor shall contact the local school board administration office for information, dates and times of these special events."*  
 (Note: It is the designer's responsibility to determine the peak hours during the active school periods by calling the local school board office. It is also the designer's responsibility to determine the limits within the project for which the restriction applies.)
10. Please include the following note as a **Traffic Control Note** for all projects on state roads.

# CADD TRICKS , TIPS, UPDATES

Kenny Rudd, Senior Roadway Design CADD Specialist

With the file sizes of today we have to rely on the FDOT File Transfer Appliance (FTA) more than ever. When the files being transferred reach a certain size, two Gigabytes (2GB), the FTA automatically splits ZIP files into multiple bin (binary) files. When this occurs, the files will have to be put back together, post-transfer, for use. Here are some instructions for how to accomplish this.

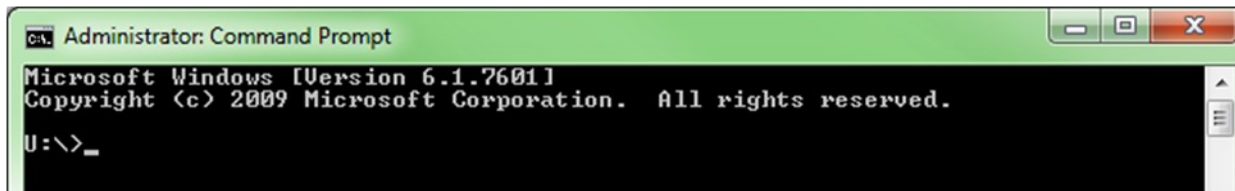
1. After clicking on the zip file attached to the delivery email the FTA will open and request login information. Fill out login and click the Download button.

2. A new screen will open with the document link attached.

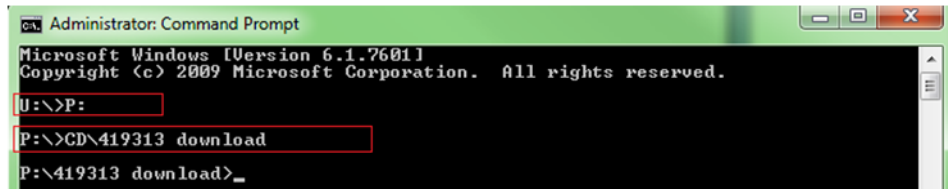
3. A new screen will open with sub-files attached. Click help for concatenation instructions.

4. Please download the sub-files individually by clicking on the links. Save these sub-files into the same destination folder, for this example the destination folder in this example is located on the P: Drive called (419313 download).

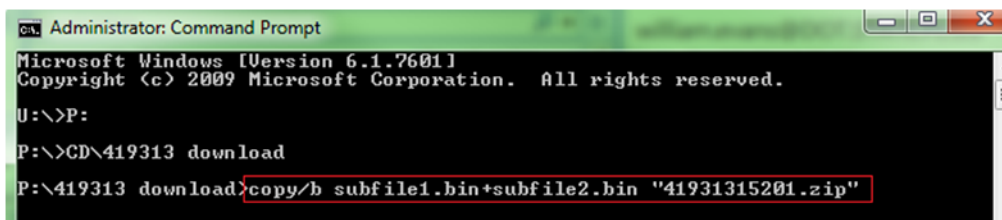
5. After completing the download of ALL sub-files, open a command prompt/console window.



6. Change the current directory in the command prompt/console window to the destination folder used for downloading as from step (4) above.



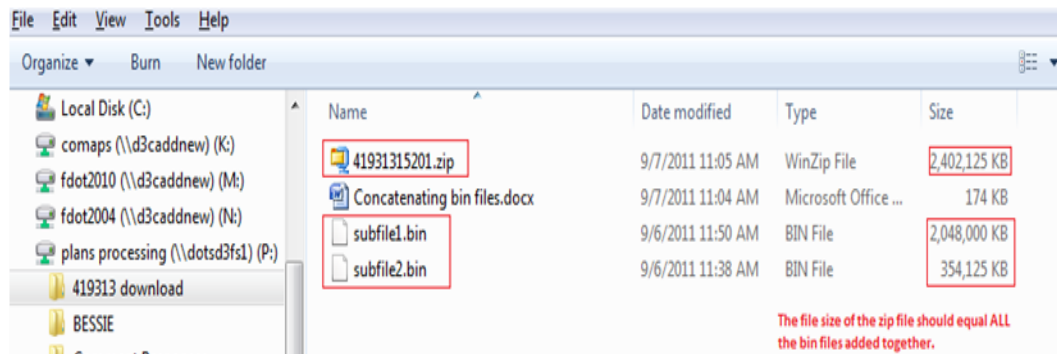
7. Run the appropriate command below based on your operating system to concatenate all the sub-files so as to reconstruct the original file (41931315201.zip):



**For Windows system:** copy /b subfile1.bin + subfile2.bin "41931315201.zip"

8. Be *Patient!* This takes time to complete. After the files are concatenated the command prompt will be displayed ready for the next command.

9. The concatenated zip file will be placed into the destination folder with the bin files.



10. Open the concatenated file with winzip.

11. From Step 7 above For Linux / Macintosh systems:  
cat subfile1.bin subfile2.bin > "41931315201.zip"

*Nothing stops the man who desires to achieve. Every obstacle is simply a course to develop his achievement muscle. It's a strengthening of his powers of accomplishment. -Eric Butterworth, Clergyman*